TOLSTIKHINA, M. M. PA 77T31

USSR/Geology Mar 1948
Freezing
Rock Formation

"The Effect of Freezing in the Southern Lake Onega Region," M. M. Tolstikhina, 1 p

"Priroda" No 3

Describes boulder fields being formed by plantation in subject region.

FDB 77T31

KAMENSKIY, Grigoriy Nikolayevich [deceased]; TOLSTIKHINA, Matil'da Moiseyevna; TOLSTIKHIN, Nestor Ivanovich; MAKSIMOVICH, G.A., prof., retsenzent; SHAGOYANETS, A.M., prof., retsenzent; OVCHINNIKOV, A.M., prof., nauchnyy red.; FILIPPOVA, B.S., red.izd-va; GUROVA, O.A., tekhn.red.

[Hydrogeology of the U.S.S.R.] Gidrogeologiia SSSR. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr, 1959. 365 p. (MIRA 13:2)
(Water, Underground)

BUGROVA, E.M.; KAKHANOVA, L.P.; KONDITEROV, V.N.; TOLSTIKOVA, N.V.; TRAVINA, T.F.

Conditions governing the sedimentation in Badkhyz in the Paleogene. Trudy VSEGEI 109:238-263 '63. (MIRA 17:7)

TOLSTIKOVA, Nadezhda Vasil'yevna; KOROBKOV, I.A., doktor geol.-miner. nauk, otv. red.

[Alay and Turkestan mollusks in Badkhyz] Molliuski alaiskikh i turkestanskikh sloev Badkhyza. Moskva, Nauka, 1964. 121 p. (MIRA 17:9)

TOLSTIKOVA, N.V.

Boundary between the Badkhyz and Namaksarskaya horizons [illegible]
Badkhyz. Trudy V.NIGRI 209:193-195 '63. (MIRA 17:7)

TOLSTIKOV, A.

Unsolved problems. Fin. SSSR 19 no. 7:53-57 Jl '58. (MIRA 11:8)
(Kazakhstan--Internal revenue)

TOLSTIKOV, A.

Urgent problems. Fin.SSSR 17 no.5:53-58 My '56. (MLRA 9:8)
(Kazakhstan--Revenue)

TOLSTIKOV, A.I.

"Opyt Proek tirovaniya, Naladki i Ekspluatatsii Pnevmotslakoudaleniya V Promyshlennykh Kotel'nykh," Proceedings of a Conference on Problems of Ash Removal, Ash and Slag Removal, and Ash and Slag Utilization, (Trudy Konferentsiya Po Voprosam Zoloulavlivaniya, Shlakozoloulavlivaniya I Shlarozoloispol'Zovaniya). U.S.S.R. Gosenergoizdat (Moscow:.. Gosenergoizdat, 1955, 160pp.; abstr. in Teploenergetika (Heat Pwr Engng, Moscow), June 1956, 64). There are ten papers on atmospheric pollution, flue gas cleaning, cyclones, instrumentation, pneumatic removal of ash, ash handling, and the use of ash for heat insulation and construction.

TOLSTIKOV, A. I.

AID P - 3070

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 4/29

Authors : Tolstikov, A. I., and Rysakov, N. F., Engs.

Title : Pneumatic removal of slag and ashes from the boiler room with layer burning of fuel

Periodical : Energetik, 7, 8-10, Jl 1955

Abstract : The authors describe an installation of three 30 t/hr boilers operating on lignite coming from Chelyabinsk and Korkinsk. The traveling grate-stokers are of the BTsR type. The pneumatic removal of slag and ashes was built according to the design of the Uralenergomontazh. The authors explain in detail the functioning of this arrangement. Six drawings.

Institution : None

Submitted : No date

TOLSTIKOV, A. I.
V. A. [illegible]SKII, Za Ekon Topliva, 1950, (2), 27-30

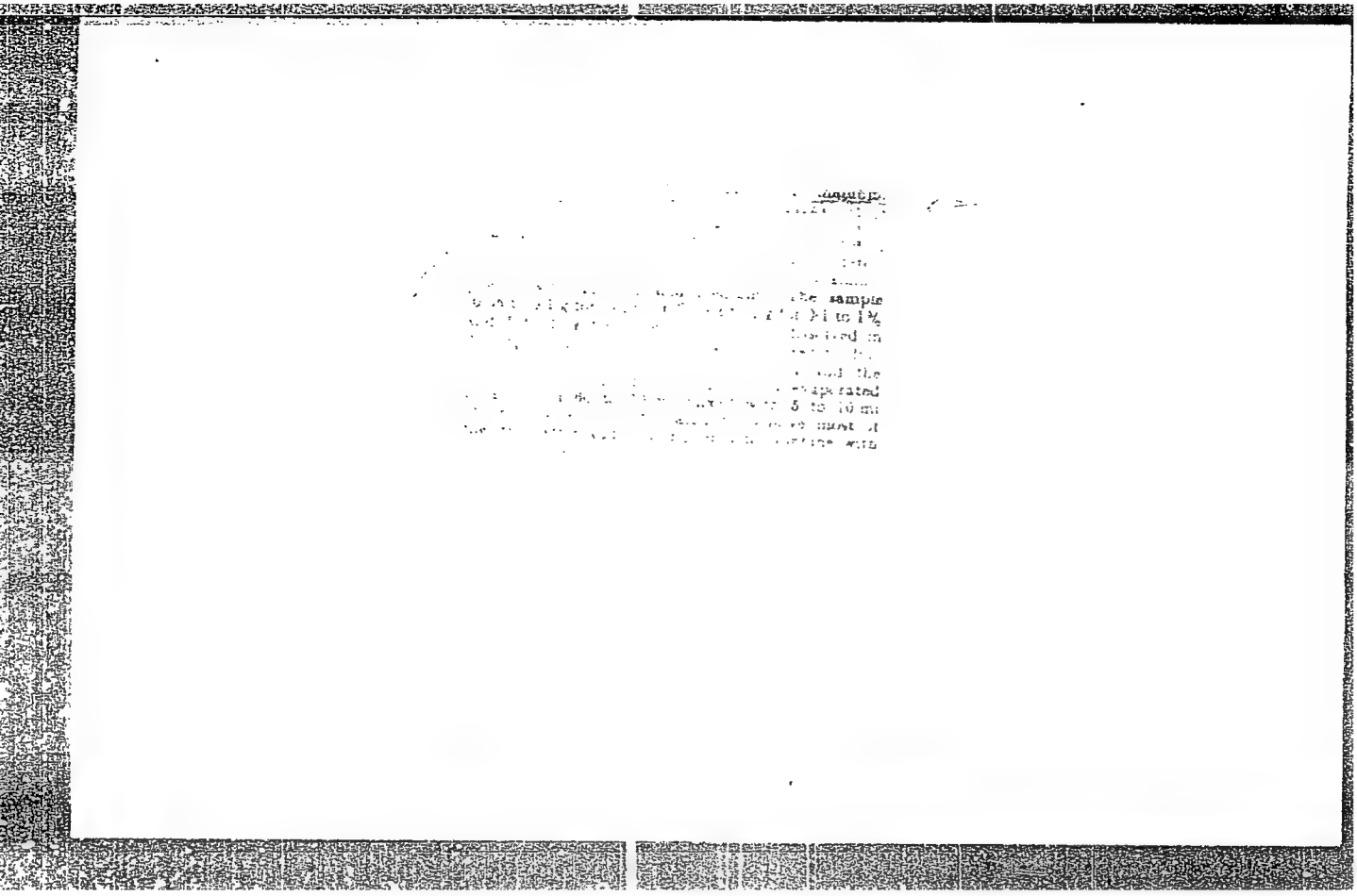
TOLSTIKOV, G., prepodavatel'.

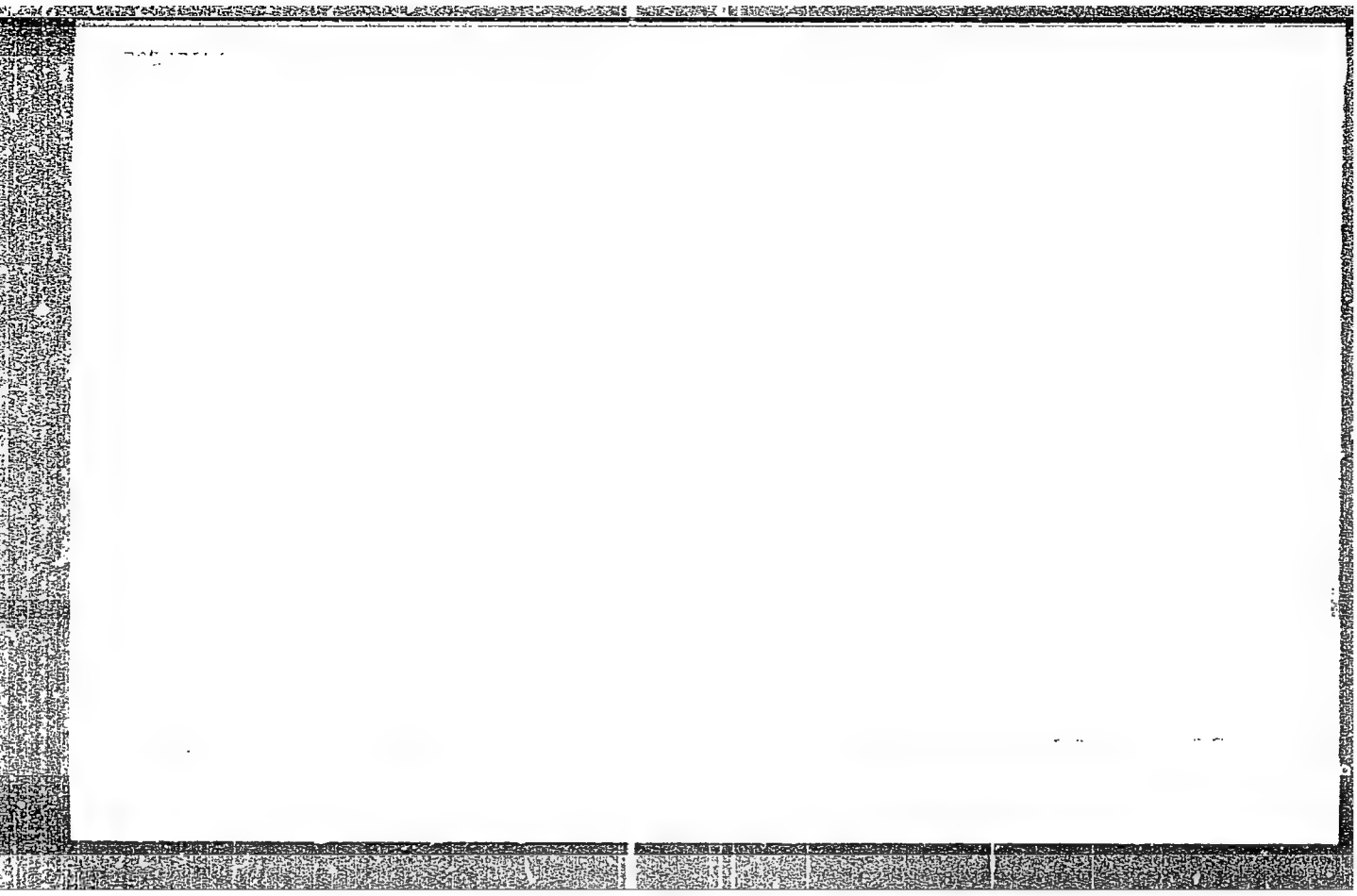
Improve the training of mine technicians. Mast. ugl. 7 no.10:27 O '58.(MIRA 11:11)

1. Golubovskiy vecherniy gornyy tekhnikum.
(Mining engineering--Study and teaching)

TOLSTIKOV, G.A.; [illegible]; [illegible], M.I.

Synthesizing β-ocimene. Zhur. prikl. khim. 37 no.12:2771-2772 D '64. (MIRA 18:3)



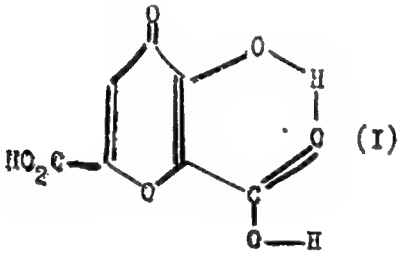


AUTHORS: Goryayev, M. I., Volkova, T. S., Tolstikov, G. A. 507/79-28-8-23/66

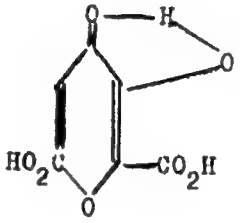
TITLE: On the Problem of Hydrogen Bonds in Meconic Acid (K voprosu o vodorodnoy svyazi v mekonovoy kislote)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol. 28, Nr 8, pp. 2102-2107 (USSR)

ABSTRACT: The structure of meconic acid (mekonovaya kislota) permits with good probability to assume the presence of an intramolecular hydrogen bond. The problem is basically of which type the latter is, of type (I) or (II):



(I)



(II)

Card 1/3

As is known (Refs 1-3), the presence of an intramolecular hydrogen bond in the molecule which contains a hydroxyl and a carboxyl group in the orthoposition causes a considerable change in the behavior of these groupings. No anomaly is detected in the molecular weight of phenols which contain this bond when they are determined in a neutral solvent, i.e. no reduction of the acidity or a complication of the ester formation. The participation of the carboxyl group in the intramolecular hydrogen bond leads to the increase of the acidity, to a complication of the ester formation, and to a facilitation of the decarboxylation. On the strength of this position the authors investigated several derivatives of the 3-oxy-4-pyrons all of which were obtained from the meconic acid which was produced from the wate products of opium production, the "meconates". A stable intramolecular hydrogen bond was found to exist in meconic acid. This bond is an ingredient of a six-membered cycle. The dissociation constants of meconic acid, of comenic acid (komenovaya kislota), and of pyromeconic acid according to the potentiometric titration were determined. The ester of 3-methoxy-4-pyrone-6-carboxylic acid was obtained which is not yet described in the publications. Figure 1 gives

On the Problem of Hydrogen Bonds in Meconic Acid SOV/73-28-8-25/66

the scheme of the molecule of the meconic acid with the mutual distance of the atoms. There are 4 figures, 2 tables, and 12 references, 7 of which are Soviet.

ASSOCIATION: Kazakhskiy gosudarstvennyy universitet
(Kazakh [illegible] State University)

SUBMITTED: January 22, 1958

Card 3/3

GLADYSHEV, V.P.; TOLSTIKOV, G.A.

Polarographic reduction of meconic acid on a mercury electrode. Izv.AN Kazakh.SSR.Ser.khim. no.1:47-54 '59. (MIRA 13:6)

1. Kazakhskiy gosudarstvennyy universitet i Institut khimicheskikh nauk AN KazSSR.
(Meconic acid)

GORYAYEV, M.I.; IGNATOVA, L.A.; TOLSTIKOV, G.A.

Ultraviolet absorption spectra of 2,4-dinitrophenylhydrazones of certain terpenes. Izv.AN Kazakh.SSR.Ser.khim. no.1:85-86 '59. (MIRA 13:6)

(Terpenes--Spectra) (Hydrazones--Spectra)

5 (3).

AUTHOR: Tolstikov, G. A. SOV/79-29-7-60/83

TITLE: Ultraviolet Absorption Spectra of 3-Oxy-γ-pyrone Derivatives (Ul'trafiolètovyye spektry pogloshcheniya proizvodnykh 3-oksi--γ-pirona)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 7, pp 2372 - 2377 (USSR)

ABSTRACT: Little has been published in publications on the spectroscopy of γ-pyrones (Refs 1-3). However, the oxonium compounds of the same pyrones have been investigated in greater detail (Refs 4-6). The absorption spectra of γ-pyrones must consist of highly intense bands characterizing electron transitions in the conjugated π-bond system (π-$\pi^{\#}$ transitions) and of weak bands caused by n-$\pi^{\#}$ transitions in the carbonyl group. The author studied the absorption spectra of 3-oxy-γ-pyrone and its derivatives: of the methoxy-γ-pyrone of comenic acid and its ethyl ester, of the ethyl ester of methoxycomenic acid, of meconic acid and its diethyl and triethyl ester. These compounds were recrystallized several times until their melting points were constant. The spectra of the aqueous, ether, and n.-heptane

Card 1/3

Ultraviolet Absorption Spectra of 3-Oxy-γ-pyrone Derivatives SOV/79-29-7-60/83

solutions of these substances were taken by means of the spectrophotometer SF-4. Special attention was devoted to the investigation of the nature of the intramolecular hydrogen bonds in the various oxypyrone derivatives as well as to the effect of the solvent on their absorption spectra. No reference was made to these problems in earlier publications. In order to eliminate the effect of hydroxyl in the carboxyl groups, the acids were converted to their esters. Evaluation of the spectra yielded the results given in a table and figures 1-4. The stability of the intramolecular hydrogen bond was found to decrease in the following order: meconic acid > oxypyrone > comenic acid. Hitherto the intramolecular hydrogen bond in meconic acid (I), comenic acid (II), and oxypyrone (III) has been represented by the formulas (I), (II), and (III). These structures had been derived from a comparison of the reactivity of the hydroxyl and the carboxyl groups of these acids (Ref 7). The results of the present investigation, described in greater detail in the report, made a more exact treatment of this problem possible. The author thanks Yu. A. Kushnikov for valuable

Card 2/3

Ultraviolet Absorption Spectra of 3-Oxy-γ-pyrone Derivatives SOV/79-29-7-60/83

advice. There are 4 figures, 1 table, and 10 references, 4 of which are Soviet.

ASSOCIATION: Institut khimicheskikh nauk Akademii nauk Kazakhskoy SSR (Institute of Chemical Sciences of the Academy of Sciences, Kazakhskaya SSR)

SUBMITTED: July 29, 1958

Card 3/3

GORYAYEV, M.I.; TOLSTIKOV, G.A.

Compounds entering into the composition of essential oils. Part 1: Isomerization of cedrene oxide. Zhur. ob. khim. 31 no. 2:644-652 F '61. (MIRA 14:2)

1. Institut khimicheskikh nauk AN Kazakhskoy SSR.
(Cedrene)

S/080/61/034/004/011/012
A057/A129

AUTHORS: Goryayev, M. I., Tolstikov, G. A., Yel'chibekova, L. A.

TITLE: On the preparation of monoperphthalic acid

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 4, 1961, 946 - 947

TEXT: In the present paper a method for preparation of monoperphthalic acid is described, based on an improvement of the method presented by E. Royals and L. Harrell (Ref. 3: J. Am. Chem. Soc., 77, 3405, 1955). Monoperphthalic acid is used, as well as perbenzoic acid, for epoxidation of unsaturated compounds. Monoperphthalic acid is usually prepared by H. Boehme's method (Ref. 1: Ber., 70, 379, 1937), but this method has some disadvantages. Royals and Harrell's method is based on mixing phthalic anhydride, 30 % hydrogen peroxide and diethylether at room temperature for 24 hours. The present authors tested this method and observed that the indicated yield of 65 % can be attained already after a time of mixing of only 6 hours. If the procedure is carried out at 30 - 35°C a yield of 65 - 70 % is obtained in 3 - 4 hours. Increasing the used hydrogen peroxide amount to a double amount makes possible to obtain monoperphthalic acid with a 63 - 65 % yield after mixing for 1 hour at 30 - 35°C. The following proce-

Card 1/3

dure was carried out in the present experiments: After mixing the three components for a certain time at a given temperature (see table) the ethernal layer was washed 3 - 4 times with 40 % ammonium sulfate solution and dried with calcinated sodium sulfate. The amount of active oxygen was determined iodometrically. Extraction of the aqueous layer with ether increase the monoperphthalic acid yield by 4 - 5 %. In all experiments 30 g (0.2 mole) phthalic anhydride and 200 ml ether were used. Monoperphthalic acid obtained by one of the procedures (see table) was used for the oxidation of cedrene by the following method 40.8 g (0.2 mole) of cedrene was oxidized at 0°C in the ethereal solution of monoperphthalic acid, containing 3.50 g (0.22 mole) of active oxygen. The mixture was left to stand at 0°C for 24 hours, the precipitated phthalic acid was filtered off and washed with ether, then the ethereal solution was washed several times with 5 % NaOH solution and subsequently with water, and was dried with sodium sulfate. After vacuum distillation 39.7 g (90 %) of cedrene oxide with a boiling point of 121 - 121.5°C (5 mm), $n_D^{20} = 1.4962$, $d_4^{20} = 1.0032$, $[\alpha]_D^{20} - 81.2°$ was obtained. There is 1 table and 4 references: 2 Soviet-bloc and 2 non-Soviet-bloc.

SUBMITTED: July 16, 1960

Card 2/3

GORYAYEV, M.I., akademik; TOLSTIKOV, G.A.

Synthesis of β-cedrene. Dokl. AN SSSR 139 no.2:363-366 Jl '61.
(MIRA 14:7)

1. Institut khimicheskikh nauk AN KazSSR. 2. AN KazSSR (for Goryayev).

(Cedrene)

POTAPOV, V.M.; GORYAYEV, M.I., akademik; TOLSTIKOV, G.A.; TERENT'YEV, A.P.

Rotatory dispersion of cedrane series compounds. Dokl. AN SSSR 140 no.6:1341-1344 O '61. (MIRA 14:11)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. 2. AN Kazakhskoy SSR (for Goryayev). 3. Chlen-korrespondent AN SSSR (for Terent'yev).

(Cedrane)

GORYAYEV, M.I., akademik; TOLSTIKOV, G.A.

Structure of sabinene monohydrochloride. Dokl. AN SSSR 141 no.4: 855-856 D '61. (MIRA 14:11)

1. Institut khimicheskikh nauk AN KazSSR. 2. AN KazSSR (for Goryayev).

(Thujene)

GORYAYEV, M.I.; TOLSTIKOV, G.A.

Study of the substances entering into the composition of essential oils. Part 2: Condensation of sabinene with diazoacetic ester. Zhur. ob. khim. 32 no.1:310-312 Ja '62. (MIRA 15:2)

1. Institut khimicheskikh nauk AN Kazakhskoy SSR.
(Sabinene) (Acetic acid)
(Essences and essential oils)

RADAKOV, G.A.; GORYAYEV, M.I.; TOLSTIKOV, G.A.

Catalytic transformations of terpenes. Part 9: Isomerization of sabinene by means of metatitanic acid. Zhur. ob. khim. 32 no.1: 312-315 Ja '62. (MIRA 15:2)

1. Institut khimicheskikh nauk AN Kazakhskoy SSR.
(Sabinene) (Titanic acid)

S/079/62/032/003/006/007
D204/D302

AUTHORS: Goryayev, N.I. and Tolstikov, G.A.

TITLE: Study of compounds occurring in volatile oils. IV. Reduction of the α-oxide of cedrene (A)

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 3, 1962, 997-999

TEXT: Reduction of A with $LiAlH_4$ (in 300% excess) gave, after boiling for 24 hours, 35% of pseudocedrol and some isocedrenol. Catalytic hydrogenation of A on skeletal Ni or Adams' Pt did not proceed at 40°C and atmospheric pressure. At 110°C and under a pressure of 130 atm of H_2, A yielded 66% of isocedranol. Full experimental details are given. There are 8 references: 6 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: A. Moor, J.Am.Chem.Soc. 78, 1173, (1956),

ASSOCIATION: Institut khimicheskikh nauk An Kaz. SSR (Institute of Chemical Sciences AS Kazakhskaya SSR)

SUBMITTED: February 7, 1961

Card 1/1

TOLSTIKOV, G.A.; GOLYAYEV, M.I.; TOLSTIKOVA, L.F.; KIM KYA OK

Preparation of [illegible] of glycyrrhetic and oleanolic acids. Zhur. ob. khim. 34 no.9:3133-3134 S '64. (MIRA 17:11)

1. Institut khimicheskikh nauk AN Kazakhskoy SSR, laboratorii v g. Chimkente.

GORYAYEV, M.I.; IGNATOVA, L.A.; TOLSTIKOV, G.A.; DEMBITSKIY, A.D.

Chemicals constituents of essential oils. Part 13: Hydrogenation of 4-terpinenol and the synthesis of some amino derivatives of p-menthane. Zhur. ob. khim. 35 no.7:1186-1190 Jl '65. (MIRA 18:8)

1. Institut khimii AN KazSSR.

IGNATOVA, L.A.; TOLSTIKOV, G.A.; LISHTVAN, I.N.; GOPYANIN, M.I.

Chemical composition of essential oil from Juniperus semiglobosa Rgl.
Zhur. prikl. khim. 37 no.6:1389-1391 Je '64. (MIRA 18:3)

TOLSTIKOV, G.A.

Dynamics of the underground waters of the Mesozoic sediments of the Siberian portion of the Ural Mountain region. Neftegaz.geol. i geofiz. no.1:28-31 '65. (MIRA 18:5)

1. Tyumenskiy filial Sibirskogo nauchno-issledovatel'skogo instituta geologii, geofiziki i mineral'nogo syr'ya.

TOLSTIKOV, G.A.

Hydrological conditions of the Ural Mountain oil and gas bearing region of the West Siberian Plain. Neftegaz, geol. i geofiz. no.10:46-49 '64 (MIRA 18:1)

1. Tyumenskiy filial Sibirskogo nauchno-issledovatel'skogo instituta geologii, geofiziki i mineral'nogo syr'ya.

TOLSTIKOV, G.A.

Features of the formation of the carbonated alkali waters of the Shaim oil field. Neftegaz. geol. i geofiz. no.6:47-50 '63. (MIRA 17:10)

1. Tyumenskiy filial Sibirskogo nauchno-issledovatel'skogo institut geologii, geofiziki i mineral'nogo syr'ya.

TOLSTIKOV, G.A.; GORYAYEV, M.I.

Study of substances, constituents of etherial oils. Part 7: Addition of carbon tetrachloride to sabinene. Zhur.ob.khim. 33 no.6:2061-2065 Je '63. (MIRA 16:7)

1. Institut khimicheskikh nauk AN Kazakhskoy SSR.
(Thujene) (Carbon tetrachloride)

TOLSTIKOV, G.A.; LISHTVANOVA, L.N.; GORYAYEV, M.I.

Study of chemical constituents of essential oils. Part 6: Hydration of sabinene. Zhur.ob.khim. 33 no.2:683-687 F '63. (MIRA 16:2)

1. Institut khimicheskikh nauk AN Kazakhskoy SSR.
(Essences and essential oils) (Thujene) (Hydration)

GORYAYEV, M.I.; TOLSTIKOV, G.A.

Study of the constituents of essential oils. Part 5: Addition of alcohols to sabinene. Zhur.ob.khim. 33 no.3:1031-1037 Mr '63. (MIRA 16:3)

1. Institut khimicheskikh nauk AN Kazakhskoy SSR.
(Alcohols) (Thujene)

GORYAYEV, M.I., akademik; TOLSTIKOV, G.A.; IGNATOVA, L.A.; DEMBITSKIY, A.D.

Natural α-cedrene. Dokl. AN SSSR 146 no.6:1331-1332 O '62. (MIRA 15:10)

1. Institut khimicheskikh nauk AN KazSSR. 2. AN KasZZR (for Goryayev).

(Cedrene)

GORYAYEV, M.I.; TOLSTIKOV, G.A.

Study of the chemical constituents of essential oils. Part 4: Reduction of cedrene α-oxide. Zhur.ob.khim. 32 no.3:997-999 Mr '62. (MIRA 15:3)

1. Institut khimicheskikh nauk AN KazSSR.
(Cedrene)

GORYAYEV, Mikhail Ivanovich, akademik; PLIVA, Iozef. Prinimali uchastiye: TOLSTIKOV, G.A.; LISHTVANOVA, L.N.; GEROUT, V. [Heroit,V.]; KAYL, B.[Kajl, B.], doktor khim. nauk; NAVOTNYY, L. [Novotna, L.], doktor khim. nauk; GLAZYRINA, D.M., red.; ALFEROVA, P.F., tekhn. red.

[Methods of studying essential oils] Metody issledovaniia efirnykh masel. Alma-Ata, Izd-vo Akad. nauk Kazakhskoi SSR, 1962. 750 p. (MIRA 15:7)

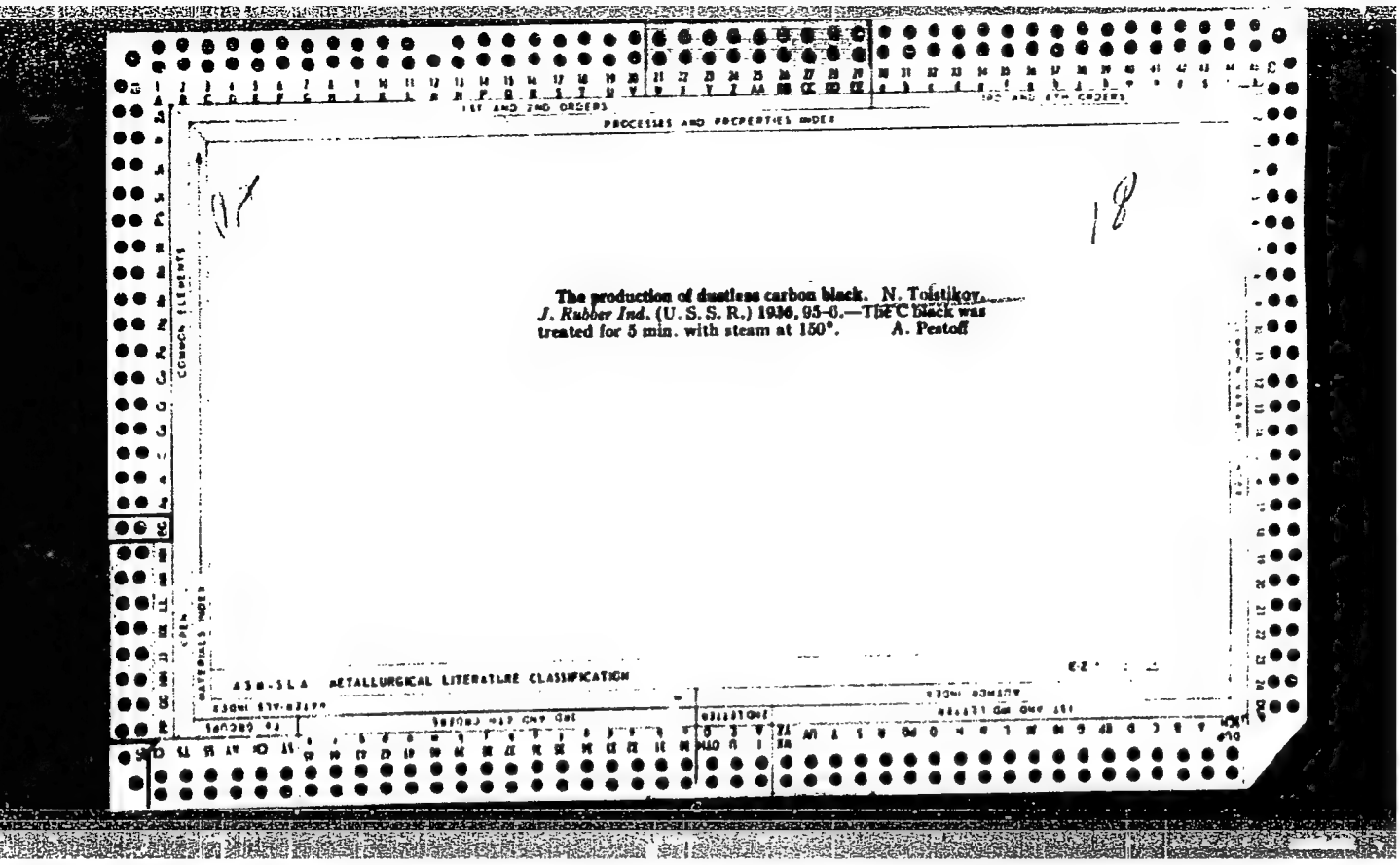
1. Institut khimicheskikh nauk Akademii nauk Kazakhskoy SSR (for Goryayev, Tolstikov, Lishtvanova). 2. Chleny-korrespondenty Akademii nauk Chekhoslovakii (for Pliva, Gerout). 3. Institut organicheskoy i biologicheskoy khimii Chekhoslovatskoy Akademii nauk (for Pliva, Gerout, Kayl, Navotnyy).

(Essences and essential oils)

TOLSTIKOV, K.

Assault of the Angara River. Sov.foto. 19 no.8:4 Ag '59.
(MIRA 13:1)

1. Fotokorrespondent gazety "Izvestiya."
(Bratsk Hydroelectric Power Station)
(Photography, Journalistic)



The production of dustless carbon black. N. Tolstikov. *J. Rubber Ind.* (U. S. S. R.) 1936, 95–6.—The C black was treated for 5 min. with steam at 150°. A. Pestoff

BYT'KO, Nikolay Dmitriyevich; PALEOLOG, G.D., retsenzent; TOLSTIKOV, N.A., retsenzent; IVANOV, I.A., red.; VORONINA, R.K., tekhn. red.

[Physics for secondary special correspondence schools] Fizika dlia zaochnykh srednikh spetsial'nykh uchebnykh zavedenii. Moskva, Gos. izd-vo "Vysshaia shkola," Pt.1-2. [Mechanics. Molecular physics and heat] Mekhanika. Malekuliarnaia fizika i teplota. 1961. 323 p. (MIRA 15:3)
(Physics)

TOLSTIKOV, N.P., inzh.

Increasing the strength of single-layer asphalt-concrete pavements on a soil-cement bed. Avt.dor. 28 no.6:7-8 Je '65. (MIRA 18:8)

TOLSTIKOV, N.P., inzh.

Preventing deformations of culvert outlets. Avt. dor. 26 no.5: 27 My '63. (MIRA 16:7)

(Culverts)

TOLSTIKOV, O., general-polkovnik aviatsii

Develop the tactics of formations. Voen. znan. 41 no.6:2-3 Je '65.
(MIRA 18:5)

TOLSTIKOV, O. V.

AID P - 5438

Subject : USSR/Aeronautics - history

Card 1/1 Pub. 135 - 15/31

Author : Tolstikov, O. V., Lt. General of air force and N. P. Dagayev, Lt. General of air force.

Title : The forty-seventh air division in the battle of the native capital.

Periodical : Vest. vozd. flota, 1, 65-69, Ja 1957

Abstract : The carrying out of various missions by the 47th mixed air division (bombers, shturmoviks, and fighters) in the battle of Moscow in 1941 are described in this article. The article is of informative value.

Institution : None

Submitted : No date

TOLSTIKOV, O., general-polkovnik aviatsii

A work of great importance to the state. Voen. znan. 38 (MIRA 15:2)
no.2:21-22 F '62.
(Civil defense)

TOLSTIKOV, O., general-polkovnik aviatsii

There must be an all-out improvement in the training of the people. Voen. znan. 39 no.4:33-34 Ap '63. (MIRA 16:6)

(Civil defense)

TOLSTIKOV, O., general-polkovnik aviatsii

Greater discipline and business ability in the work of staffs.
Voen. znan. 40 no.8:1-2 Ag '64. (MIRA 17:11)

TOLSTIKOV, O., gen.-leytenant-polkovnik aviatsii

Liberating Romania...Kryl. rod. 15 no.8:2-3 Ag '64
(MIRA 18:1)

L 28480-66 EWP(k)/EWT(m)/T/EWP(v)/EWP(t)/ETI JD/HM

ACC NR: AP6010135 SOURCE CODE: UR/0133/66/000/003/0245/0248

AUTHOR: Matveyev, Yu. M. (Doctor of technical sciences); Grinberg, Z. A. (Engineer); Tolstikov, R. M. (Engineer); Gazman, S. M. (Engineer)

38
B

ORG: none

TITLE: Radio-frequency welding of plano-oval radiant-heating tubes

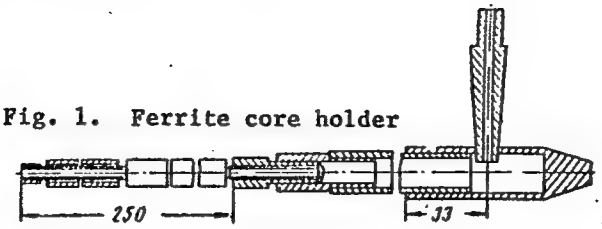
SOURCE: Stal', no. 3, 1966, 245-248

TOPIC TAGS: generator, metal tube, induction welding, power welding equipment, welding technology / LZ-107 generator

ABSTRACT: Owing to a technological breakthrough at the Pervoural'sk Tube Plant induction welding of tubes of diameter smaller than 16 mm is now possible on an industrial scale. The techniques of this welding are described here for the production of radiant-heating tubes from circular skelp of 13.2 mm diameter, with wall thickness of 1 mm. A specially developed ferrite-core ring holder (Fig. 1) assuring a quick replacement of ferrite-core sets is employed: it is very simple to construct and it assures an adequate cooling of the ferrite cores during the welding. (The ferrite-core rings are used to increase current concentration at the skelp edges.) The internal surface of the ferrite core rings is cooled with water entering via a 3-mm diameter capillary tubule and the external surface, with the water filling the tube. The

Card 1/4 UDC: 621.774.2

Fig. 1. Ferrite core holder



welding is performed at frequencies of 440 and 1000 cps (10^3 sec^{-1}), on using a 100-kw LZ-107 generator. In addition a special welding-machine table has been developed (Fig. 2) to assure fixing the position of the inductor with respect to the axis of welding rolls. The LZ-107 100-kw induction welding generator assures stable welding rates of 45-55 m/min (72-92 cm/sec) and has a sufficient power reserve for increasing these rates to 60-65 m/min (100-108 cm/sec). The induction-welded plano-oval tubes thus obtained (Fig. 3) are greatly superior in quality to their resistance-welded counterparts and are highly prized by clients. Orig. art. has: 3 figures, 3 formulas.

L 28480-66
ACC NR: AP6010135

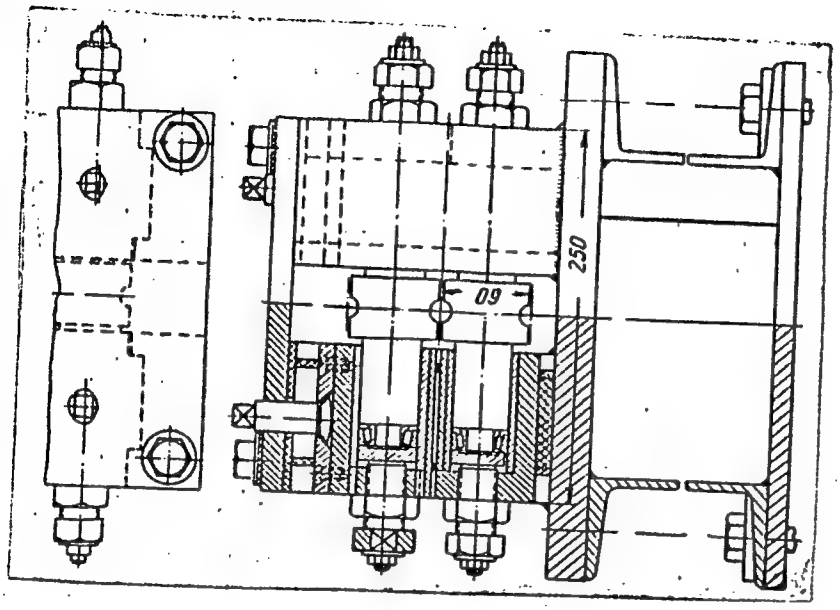


Fig. 2. Supporting table for horizontal rolls of 60 mm diameter

L 28480-66
ACC NR: AP6010135

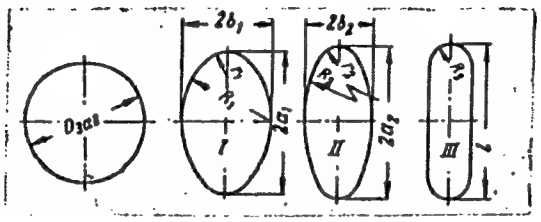


Fig. 3. Roll pass profiles (roll stands I-III) for plano-oval tubes measuring 17.5x5x1 mm

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 002

Card 4/4

L 9034-66 EWT(m)/EWP(k)/EWP(z)/EWA(c)/T/EWA(d)/EWP(v)/EWP(t)/EWP(b)

ACC NR: AP5023086 MJW/JD/HM/HW/WB UR/0125/65/000/009/0065/0066

UDK 621.791.762.621.9-462:669.14.0.13

AUTHOR: Grinberg, Z.A. (Engineer); Gazman, S.M. (Engineer); Tolstikov, R.M. (Engineer); Pletnev, V.I. (Engineer)

TITLE: Effect of cooling rate of seam on the corrosion resistance of welded pipes from Kh18N10T steel

SOURCE: Avtomaticheskaya svarka, no. 9, 1965, 65-66

TOPIC TAGS: metal welding, seam welding, pipe, stainless steel, welding technology, cooling, cooling rate, corrosion, corrosion resistance, weld heat treatment

ABSTRACT: The effect of intensive cooling was investigated by cooling the weld root and thermal effect region with a sprayer installed inside the pipe together with a head pressure gas nozzle to provide a minimal flash. A specially designed case was used to prevent the dropping of the water or steam into the molten pool. The heat was removed through the thin wall of the case continuously washed by a stream of water which was diverted at a safe distance from the welding zone. The experimental results show that 1) intensive cooling of the seam and of the thermal effect region considerably reduces the number of rejects due to corrosion, 2) it is advantageous to apply intensive cooling to welding stainless pipe whose wall thickness is more than 2 mm, 3) the best effect of seam root cooling can be expected in welding pipes whose wall

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L 9034-66

ACC NR: AP5023086

thickness is 4 mm or more, and 4) intensive seam cooling in stainless pipe welding substantially increases the pipe resistance against intercrystalline corrosion without subjection to thermal treatment. The Pervoural'skiy starotrubnyy zavod (First Ural Plant of Old Style Pipes) has been applying intensive cooling to the seam and weld region in argon arc welding of pipes for a period of two years with positive results. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: Pervoural'skiy starotrubnyy zavod (First Ural Plant of Old Style Pipes)

SUBMITTED: 26Feb65 ENCL: 00 SUB CODE: MM, IE

NO REF SOV: 005 OTHER: 000

jw

Card 2/2

OSIPOV, V., inzh.; TOLSTIKOV, V., inzh.

New grinding machine. Mekh. stroi. 20 no.10:22 O '63. (MIRA 16:10)

TOLSTIKOV, V.

Using sprayers for applying herbicides to flax fields. Tekh. v sel'khoz. 20 no.6:58-61 Je '60. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut l'na.
(Spraying and dusting equipment) (Herbicides)
(Flax)

TOLSTIKOV, V., komandir roty, starshiy leytenant; DUBININ, N., podpolkovnik; KOTEL'NIKOV, A., kapitan; SAVECHENKOV, leytenant; SEROKHVOSTOV, N., komandir roty, gvardii kapitan; DEMIDOV, A., podpolkovnik; CHIRKOV, N., komandir roty, kapitan; DERZHANOVSKIY, S., komandir roty, gvardii kapitan; SOKOLOV, A., mladshiy serzhant

Solution of tactical problems published in no. 8, Voen.vest. 38 no.12:41-43 D '58. (MIRA 12:1)

(Tactics)

TOLSTIKOV, V.A.; SHERMAN, L.Ye.; STAVISSKIY, Yu.Ya.

Measuring the capture cross sections of 5-200 Kev. neutrons for U^{238} and Th^{232}. Atom. energ. 15 no.5:414-415 N '63. (MIRA 16:12)

S/194/62/000/004/089/105
D271/D308

9,4210

AUTHORS: Tolstikov, V. A. and Dashenkov, V. M.

TITLE: Measurement of electromagnetic fields in cavity resonators by the method of small disturbing body

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 4, 1962, abstract 4zh245 (Uch. zap. Saratovsk. un-t, 1960, 69, 274-284)

TEXT: The question whether it is feasible to determine the direction of E vector in cavity resonators by the method of small disturbing body, is theoretically treated and experimentally checked. Expression is derived for the fractional frequency variation of the resonator δf, when the disturbing body is a homogeneous ellipsoid with arbitrary values of ε and μ. The method is analyzed for determining the direction of E by the dependence of δf on the orientation of an ellipsoid of revolution (metallic or dielectric), relatively to the field. Direction distribution of E in a cylindrical resonator H_{111} was experimentally investigated at about 800

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S/194/62/000/004/039/105
Measurement of electromagnetic ... D271/D308

Mc/s; divergence of averaged experimental data from the analytical values was no more than ± 0.5°. [Abstracter's note: Complete translation.]

V/B

Card 2/2

33001
S/641/61/000/000/028/033
B102/B138

26.2243

AUTHORS: Tolstikov, V. A., Stavisskiy, Yu. Ya.

TITLE: Fast neutron radiative capture cross sections of the Mo^{100} isotope

SOURCE: Krupchitskiy, P. A., ed. Neytronnaya fizika; sbornik statey. Moscow, 1961, 312-313

TEXT: The fast neutron radiative capture cross sections were measured with the activation method in the range 30 to 2100 kev for Mo^{100}. The neutrons were obtained from $T(p,n)He^3$ reactions, the protons being accelerated by a Van-de-Graff. The neutron energy spread was $\pm$ 50 kev for the 400-2100 kev range (target at $\theta = 0^\circ$ to the proton beam) and $\pm$ 15 - $\pm$ 30 kev for 30-400 kev (target at $\theta = 100^\circ$ to the proton beam). The irradiation of the specimens with thermal neutrons was carried out in the thermal column of a fast research reactor. The radiative capture cross sections of J^{127} were used as reference values; for thermal neutrons $\sigma_{n,}$ was taken to be 5.6 $\pm$ 0.3 b for J^{127} and 0.20 $\pm$ 0.05 b for Mo^{100}.

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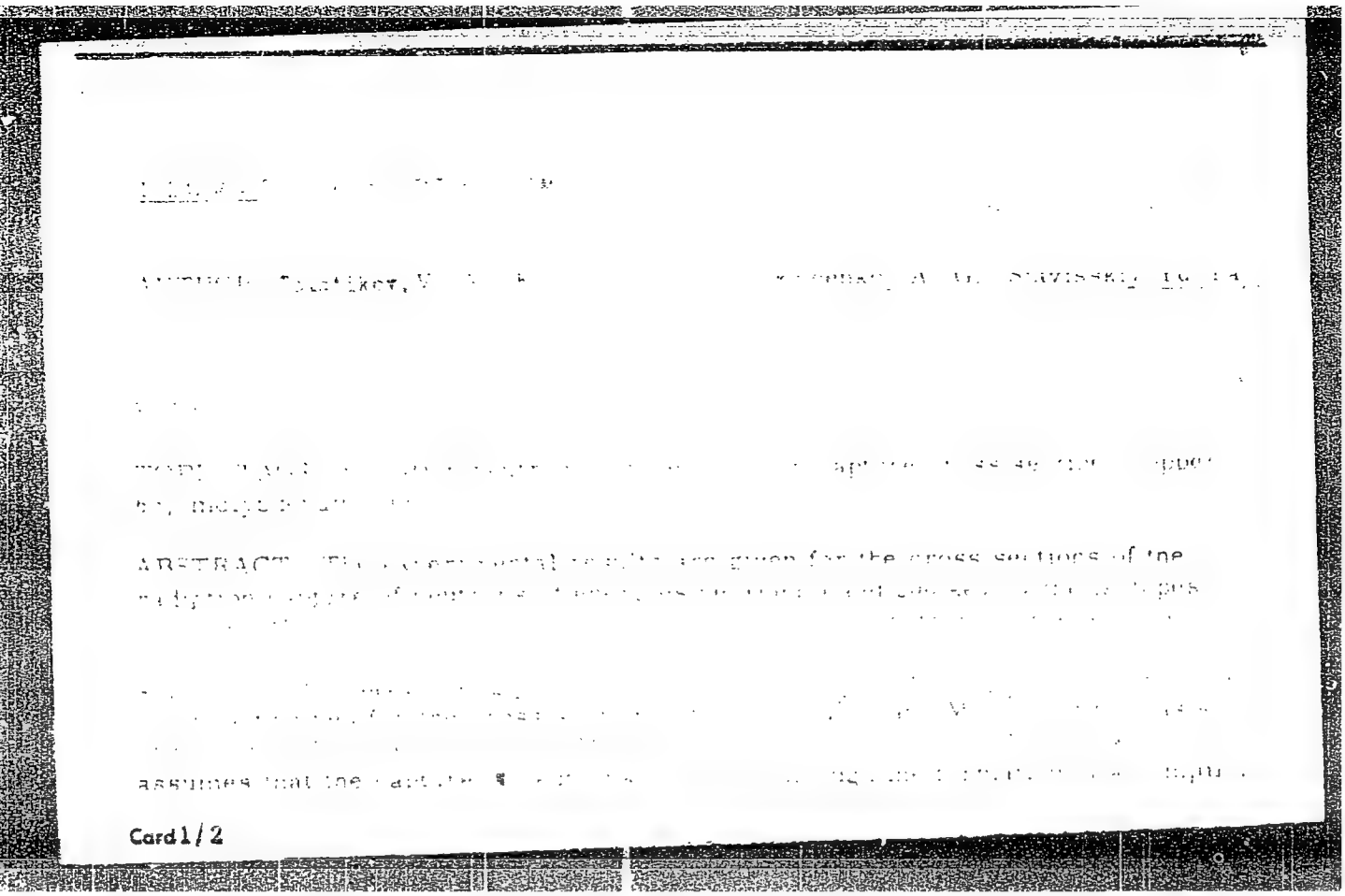
93691

S/641/61/000/000/028/033
B102/B138

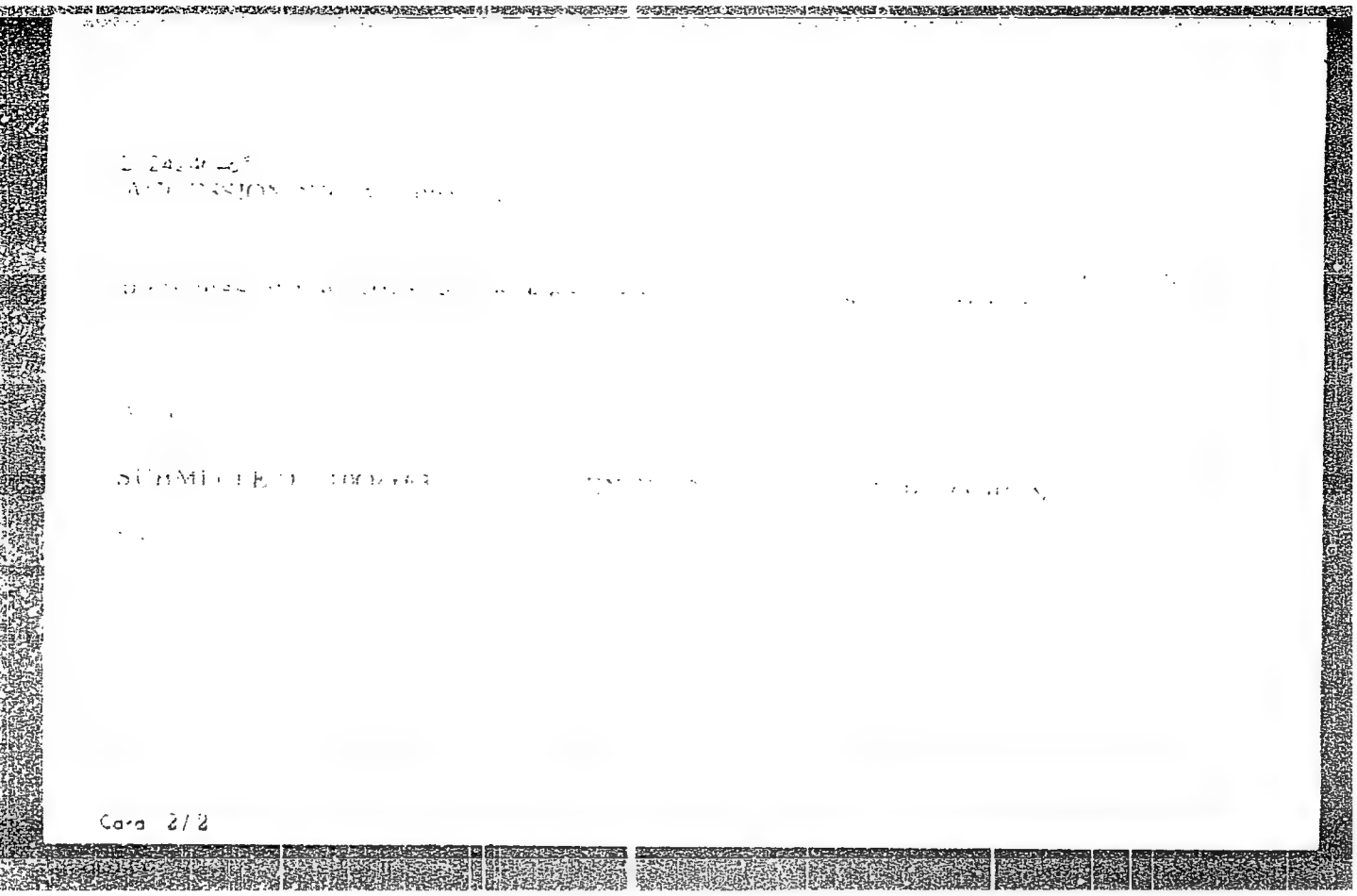
Fast neutron radiative capture.

For fast neutrons the U^{235} cross sections were used as reference values The root-mean-square measuring error was not greater than 1.5-2.5 %. In the range 30 kev $\leq E_n \leq$ 170 kev the fast neutron radiative capture cross sections for Mo^{100} were found to drop monotonically from 85 to 35 mb; between 170 and 400 kev they remained almost constant, then decreasing again to 10 mb at 1200 kev. Between 1200 and 2100 kev the σ values remained at about 10 mb. Between 200 and 2100 kev the results are in good agreement with those of other researchers. Professor A I. Leypunskiy and O. D. Kazachkovskiy, Doctor of Physical and Mathematical Sciences, are thanked for their interest, V. I. Zotova and V. F. Nedopekin for assistance. There are 1 figure and 10 references: 4 Soviet and 6 non-Soviet. The four most recent references to English-language publications read as follows: J F Vervier, Nucl. Phys. 9, 569. 1959; S. J Bame, R. L. Cubitt, Phys. Rev. 113, 256, 1959; D. J. Hughes, R B. Schwartz, Neutron Cross Sections, N.Y. USA, 1958; A. E. Jonsrud et al. Bull. Amer. Phys. Soc. Series II, 3, 165, 1958.

Card 2/2



Card 1/2



Card 2/2

L 8687-65 EWT(m) SSD/AFWL MLK

ACCESSION NR: AT4048281 S/0000/64/000/000/0001/0004

AUTHOR: Skavinskiy, Yu. Ya.; Kolesov, V. Ye.; Maly*shev, A. V.; Tolstikov, V. A.; Shapar', A. V.

TITLE: Radiative capture of fast monoenergetic neutrons

SOURCE: Radiatsionny*y zakhvat by*stry*kh monoenergeticheskikh neytronov *

TOPIC TAGS: radiative capture, neutron capture, capture cross section, energy dependence

ABSTRACT: The authors report briefly on their recent measurements of the cross section for the radiative capture of several activating [illegible] and natural [illegible]. The energy dependence of the [illegible] for the most part by [illegible]

L 8687-65

ACCESSION NR: AT4048281

scintillation counter (CaF_2 crystal). The accuracy of the activation method was within 5% and that of the gamma-ray method within 15%. The monochromatic neutrons were obtained with a Van de Graaff generator using the reactions T(p, n) and Li(p, n), which yielded neutrons with energies from 50 keV to 2.5 MeV and from 5 keV to 200 keV, respectively. The standard reactions used for comparison were the fission of U^{235}, the $B^{10}(n, \alpha)$ reaction, and I^{127} capture. The values obtained for the cross sections were compared with those calculated from the statistical theory. The good agreement between theory and practice for the case of iron and Cu^{65} confirms the systematics proposed for the parameters of the radiative capture cross sec-

[illegible] Malyshev, ZhETF v. 45, 716,

SUBMITTED: [illegible] ENCL: 00

SUB CODE: NP NR REF SOV: 002 OTHER: 004

Card 2/2

TOLSTIKOV, V.A.; KOLESOV, V.Ye.; STAVINSKIY, V.S.

Calculating the neutron cross sections for tungsten with the aid of an optical nuclear model. Atom. energ. 11 no.1:56-58 Jl '61. (MIRA 14:7)
(Neutrons) (Nuclear models)

TOLSTIKOV, V.A.; STAVISSKIY, Yu.Ya.

[Cross sections of radiative capture of fast neutrons by the Mo^{100} isotope] Secheniia radiatsionnogo zakhvata bystrykh neitronov izotopom Mo^{100}. Moskva, Glav. upr. po ispol'zovaniiu atomnoi energii, 1960. 5 p. (MIRA 17:2)

KALININ, V.I., prof., doktor fiziko-matem. nauk [deceased];
AKINDINOV, V.V.; GERSHTEYN, G.M.; DASHENKOV, V.M.; YEVSEYEV, V.I.; IL'IN, V.S.; KOROSTELEV, G.N.; LUCHININ, V.D.; NAUMENKO, Yu.P.;RYAZANOVA, T.P.; SEDIN, V.A.; TOLSTIKOV, V.A.; SHTYROV, A.I.; AVILOV, B.I., red.; ZENIN, V.V., tekhn. red.

[Practical work in radio physics] Radiofizicheskii praktikum. Izd.2., dop. i perer. Saratov, 1961. 277 p. (MIRA 15:1)

1. Saratov. Universitet. 2. Kafedra radiofiziki Saratovskogo universiteta im. N.G.Chernyshevskogo (for all except Avilov, Zenin).

(Radio)

STAVISSKIY, Yu.Ya.; TOLSTIKOV, V.A.

Radiative capture cross-section of 0.03-2 Mev neutrons for the isotopes Mn^{55}, Cu^{65}, Ba^{138}, Th^{232}. Atom.energ. 10 no.5:508-511 My '61. (MIRA 14:5)

(Neutrons--Capture)

STAVISSKIY, Yu.Ya.; TOLSTIKOV, V.A.; KONONOV, V.N.

Measurement of the radiative capture cross-sections of I^{127} for fast neutrons. Atom. energ. 10 no.2:158-160 F '61. (MIRA 14:1)
(Iodine) (Neutrons)

06337
SOV/141-2-1-9/19

AUTHORS: Dashenkov, V.M. and Tolstikov, V.A.

TITLE: An Investigation of Resonance Phenomena in a System of Distributed Coupled Lines

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1959, Vol 2, Nr 1, pp 73 - 83 (USSR)

ABSTRACT: A system of n parallel coupled lines is considered which are loaded at their ends with arbitrary reactances. A formula is obtained for the input admittance of any line and an equation is found for the proper frequencies of the system. The arrangement studied is in Figure 1 and the voltage and current at a section x of the i-th line is given by Eq (1). The input admittance is formally expressed as Eq (4) but the introduction of non-dimensional parameters changes this to Eq (9). The proper frequencies are found by equating the determinant of Eq (14) to zero but the general case is too unwieldy and two special cases are treated:
1) The system consists of identical lines equidistant from one another and only adjacent lines are considered coupled; Eq (14) then reduces to Eq (19), whose solution is Eq (20);

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An Investigation of Resonance Phenomena in a System of Distributed Coupled Lines

2) The system consists of n-1 non-coupled identical lines, each of which, however, is coupled to the n-th line, which has different parameters. The solution to the determinant Eq (21) is Eq (22). When the n-th line is the same as the others, the solution is Eq (24). The experimental work has been carried out on lines shorted at one end and terminated in a capacitance at the other. The proper frequency of the lines was 79.3 Mc/s and the Q-factor about 300. Line length was 200 mm, line diameter 4 mm, line spacing 27 mm, capacitance load 18.6 pF. The source of excitation was the 102-I oscillator. Frequency could be measured to 1 in 10^4. The variation of resonant frequency on coupling for numbers of lines from 2 to 6 was observed. Experimental data on 4 and 6 lines is shown dotted in Figure 2; the solid lines are from Eq (20). Good agreement was reached with 2 lines; for more lines there are considerable discrepancies. Better agreement is found when the more rigorous Eq (14) is used. An expression for the ratio of the currents at two resonances

An Investigation of Resonance Phenomena in a System of Distributed Coupled Lines

in the i-th line is Eq (25) and special cases of two lines are given by Eq (34) and of three lines by Eq (35). Experimental results for a two-line system are in Figure 3. The agreement with theory is good. For a three-line system the dependence of current ratios on coupling and frequency are plotted in Figures 4a , 5a, 6a and 7a . The resonant frequencies are in Figures 4b, 5b, 6b and 7b. Figures 4B, 5B, 6B and 7B are isometric resonance plots. These curves all refer to the 'first' line. Analogous results have been found for the 'second' and 'third' lines. An analysis of the results yields a recommended 6-stage tuning procedure to give the most symmetrical curve in the first line. Figure 8 shows the intermediate stages in obtaining the best response. V.I. Kalinin is thanked for his assistance.
There are 8 figures and 11 references, 9 of which are Soviet, 1 German and 1 English.

06337
SOV/141-2-1-9/19

An Investigation of Resonance Phenomena in a System of Distributed Coupled Lines

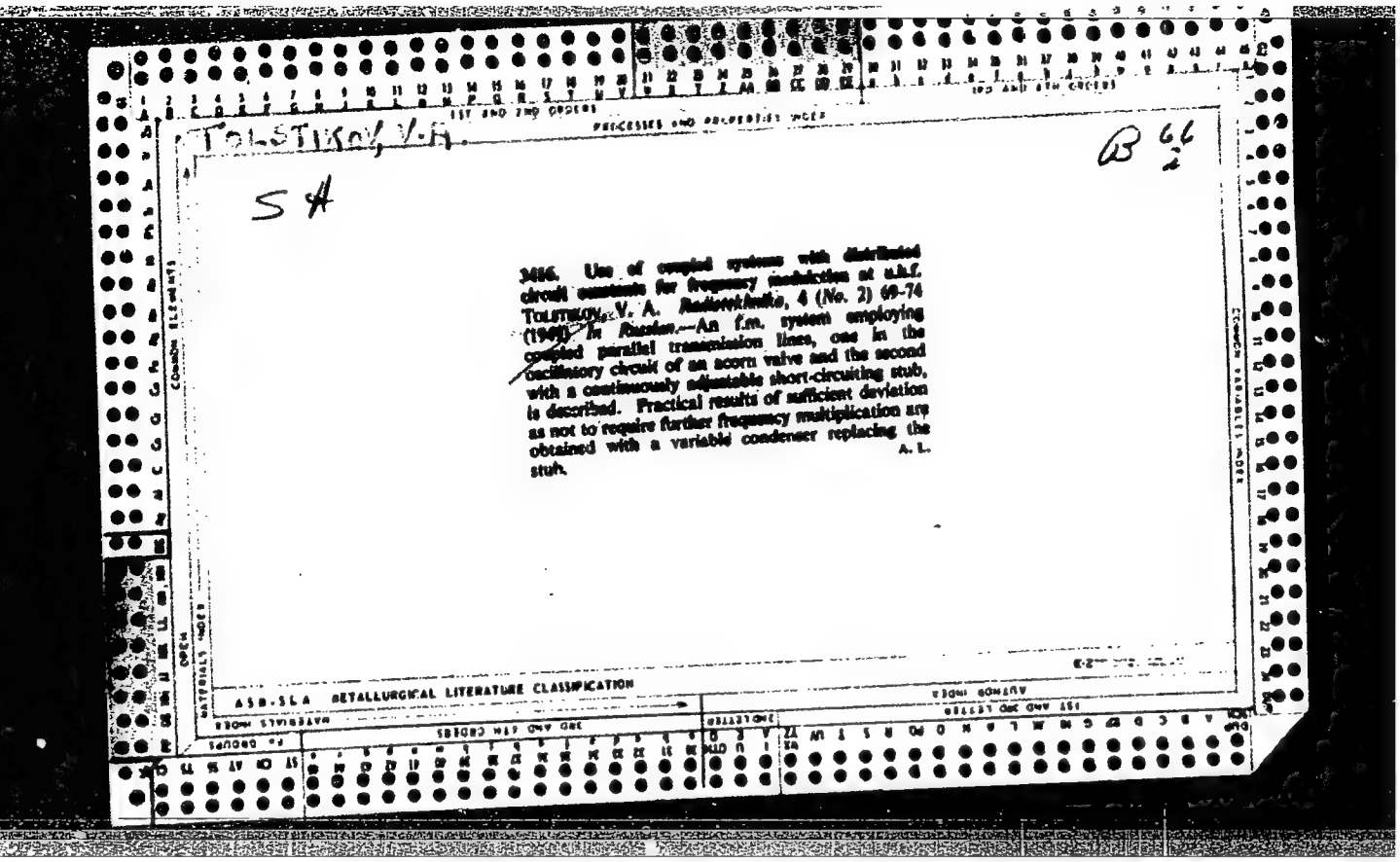
ASSOCIATION: Saratovskiy gosudarstvennyy universitet (Saratov State University)

SUBMITTED: November 13, 1957

Card 4/4

KONONOV, V.N.; STAVISSKIY, Yu. Ya. ; TOLSTIKOV, V.A.

Measurement of the cross section of radiation capture of 25kev neutrons. Atom. energ. 5 no.5:564 N '58. (MIRA 12:1)
(Neutrons--Capture)



TOLSTIKOV, V.A.

B 66

S #

3486. Use of coupled systems with distributed circuit constants for frequency modulation at u.h.f. TOLSTIKOV, V. A. *Radiotekhnika*, 4 (No. 2) 69-74 (1949). In Russian.—An f.m. system employing coupled parallel transmission lines, one in the oscillatory circuit of an acorn valve and the second with a continuously adjustable short-circuiting stub, is described. Practical results of sufficient deviation as not to require further frequency multiplication are obtained with a variable condenser replacing the stub. A. L.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

S/089/60/009/005/007/020
B025/B070

26.2243

AUTHORS: Stavisskiy, Yu. Ya., Tolstikov, V. A.

TITLE: Radiative Capture Cross Sections of the Isotopes V^{51}, Nb^{93}, W^{186}, and Tl^{205} for Fast Neutrons

PERIODICAL: Atomnaya energiya, 1960, Vol. 9, No. 5, pp. 401 - 403

TEXT: The object of the work was to measure the radiative capture cross sections of the isotopes mentioned in the title for neutrons of energies of 0.03 - 2.1 Mev. The source of neutrons was the reaction $T(p,n)He^3$ carried out in a Van de Graaff accelerator. The sample activation by neutrons of energies $E_n < 300$ kev was measured at an angle of 95^0 with the direction of the proton beam in the accelerator; for neutrons of energies $E_n > 300$ kev it was measured at an angle of 0^0. The error in neutron energy is due to the thickness of the tritium target, the geometrical dimensions of the sample, and the fluctuations in the accelerating voltage of the accelerator. For neutron energies of up to

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Radiative Capture Cross Sections of the Isotopes V^{51}, Nb^{93}, W^{186}, and Tl^{205} for Fast Neutrons

S/089/60/009/005/007/020
B025/B070

200 kev the error amounted to ± 12 - 20 kev; for higher energies it was ± 30 - 40 kev. Activation by thermal neutrons was carried out in the thermal column of a fast reactor. I^{127} and U^{235} were used as standards for the cross section measurements by the method of relative activation. The results of measurement are represented in Figs. 1-4, their accuracy being 2 - 5%. For neutrons of energies higher than 150 kev the results for V^{51} and W^{186} agree well with the measurements of Barshall; for Tl^{205} agreement is not so good. The capture cross section for Nb^{93} is essentially equal to the production cross section of the isomer Nb^{94*}.

A. I. Leypunskiy, Member of the Academy of Sciences of the UkrSSR, and O. D. Kazachkovskiy, Doctor of Physical and Mathematical Sciences, are thanked for valuable discussions. There are 4 figures and 11 references: 4 Soviet and 7 US.

SUBMITTED: April 27, 1960

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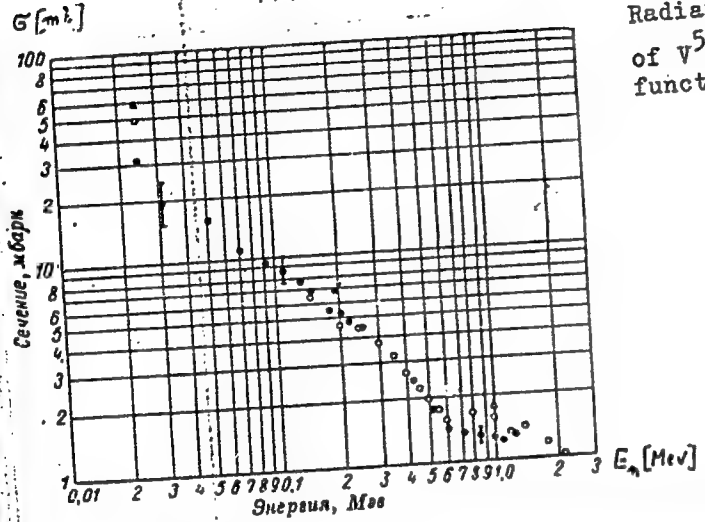
B025/B070

FIG. 1



Legend to Fig.1:
Radiative capture cross section of V^{51} for fast neutrons as a function of their energy.

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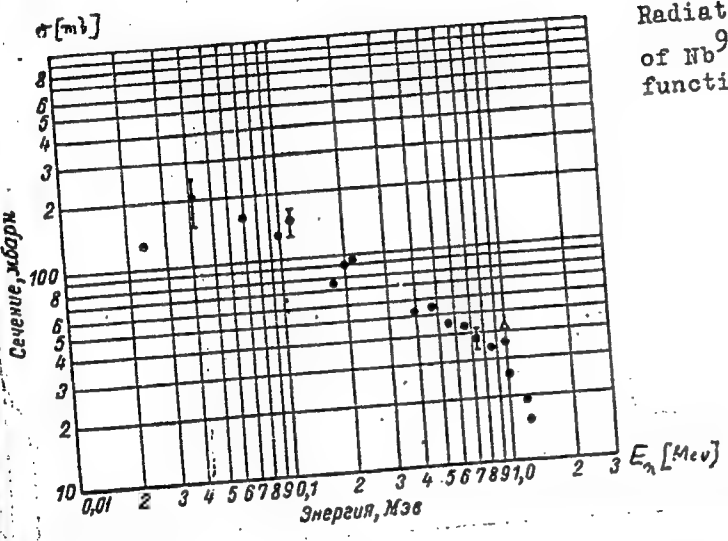
85563

S/089/60/009/005/007/020
B025/B070

FIG. 2



Legend to Fig.2:
Radiative capture cross section of Nb^{93} for fast neutrons as a function of their energy.

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B025/B070

FIG. 3

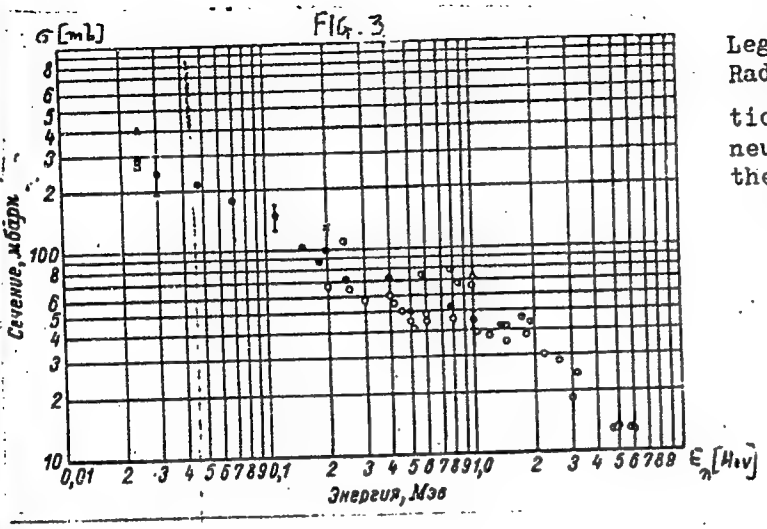

Fig.3

Legend to Fig.3:
Radiative capture cross section of W^{186} for fast neutrons as a function of their energy.

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B025/B070

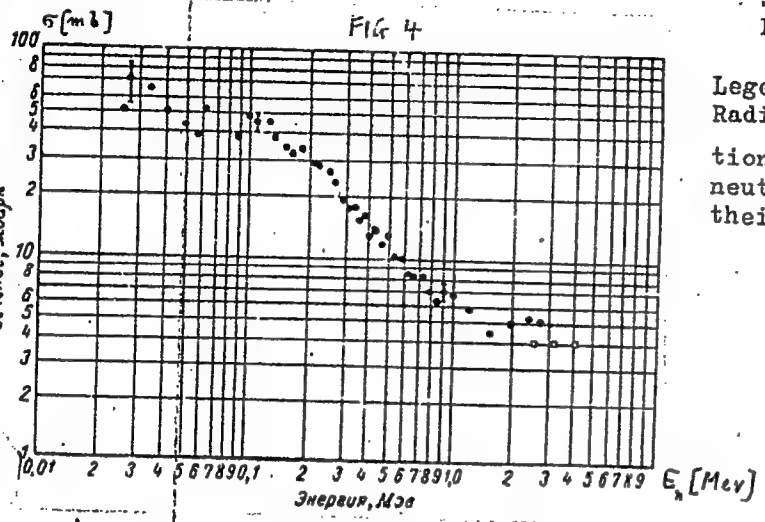

Fig.4

Legend to Fig.4:
Radiative capture cross section of Tl^{205} for fast neutrons as a function of their energy.

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STAVISSKIY, Yu.Ya.; TOLSTIKOV, V.A.

Cross-sections for the radiative capture of fast neutrons by the isotopes V^{51}, Nb^{93}, W^{186}, and Tl^{205}. Atom.energ. 9 no.5:401-403 N '60. (MIRA 13:11)

(Vanadium) (Niobium) (Tungsten--Isotopes)
(Thallium--Isotopes)

89358

S/089/61/010/002/008/018
B102/B209

26.2243

AUTHORS: Stavisskiy, Yu. Ya., Tolstikov, V. A., Kononov, V. N.

TITLE: Measurement of the radiative capture cross section of fast neutrons by I^{127}

PERIODICAL: Atomnaya energiya, v. 10, no. 2, 1961, 158-160

TEXT: In activation measurements I^{127} is suited as a standard; it has an appropriate half-life, sufficiently high radiative capture cross section, and a known thermal neutron capture cross section. Data on fast-neutron capture are not yet available and/or the existing data are erroneous or contradictory, particularly in the range of 0.01 - 2.5 Mev. The authors measured (1958 - 1959) the energy dependence of the radiative capture cross sections for 0.02 - 2.5 Mev neutrons by means of the activation method. A U^{235} fission chamber and the I^{127} sample were simultaneously irradiated with a fast-neutron beam and the arising β-activity was measured with an end-window counter. The reaction $T(p,n)He^3$ served as a source of fast neutrons. The arrangement of tritium target (1), I^{127} sample (2), and fission chamber (3) was as follows:

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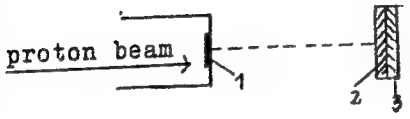
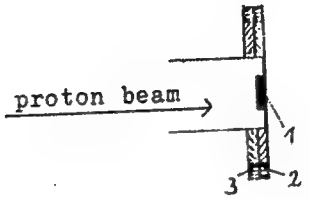
S/089/61/010/002/008/018
B102/B209

Measurement of the ...



Irradiation by neutrons with energies >300 kev



Irradiation by neutrons with energies <300 kev

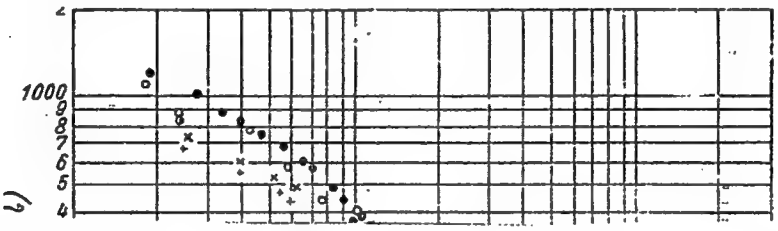
The measurements below 0 and 100° with respect to the proton beam direction lead to an "overlapping" of neutron energies; the agreement of the cross sections in this region proved the measurements to be reliable. The effect of the neutrons scattered from the walls was less than 0.3% and was determined from the deviation from the $1/R^2$ law. Standard measurements with thermal neutrons were carried out at the thermal column of a fast reactor. Activation cross section of I^{127} by thermal neutrons was assumed to be 5.6±0.3 b (according to Ref. 8), U^{235} fission cross section to be 582±4 b (according to

Card 2/4

Measurement of the ...

Ref. 9). The error in the obtained value of the radiative capture cross section of I^{127} is, in essential, due to the U^{235} fission cross section error (12 - 25%). Fig. 2 shows a comparison between the results obtained by the present measurements (o) and those of other authors (⊙,⊙,○,×,△,□,⋈,◭). The σ curve drops monotonically with increasing E_n and may, within accuracy of measurement, be approximated through a $E^{-0.7}$ curve. In conclusion, the authors thank A. I. Leypunskiy, O. D. Kazachkovskiy, and V. S. Stavinskiy for their interest and discussions. There are 2 figures and 14 references: 5 Soviet-bloc and 9 non-Soviet-bloc.

SUBMITTED: July 14, 1960



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89358

Measurement of the ...

S/089/61/010/002/008/018
B102/B209

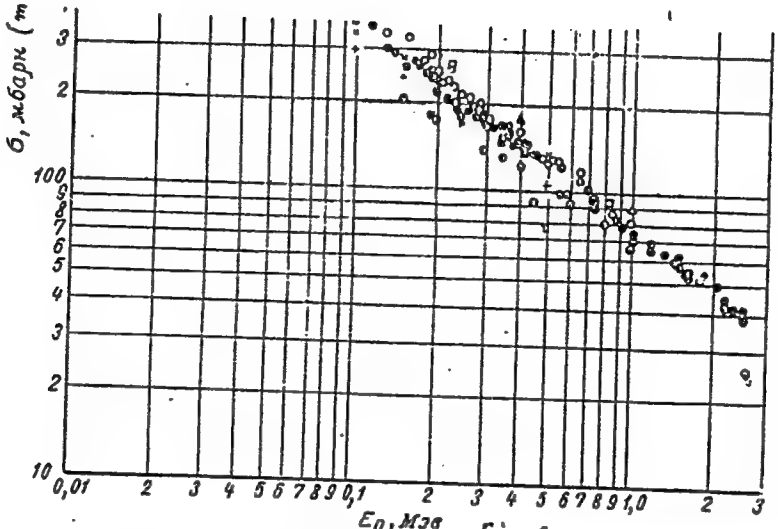

Fig. 2.

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TOLSTIKOV, V.A.; DASHENKOV, V.M.

Investigation of resonance frequencies of two space-connected coaxial lines. Uch.zap. Sar.un. Vyp.fiz. 56:161-180 '57. (MIRA 12:11)
(Coaxial cables)

SOV/89-7-3-12/29

21(7)

AUTHORS: Stavisskiy, Yu. Ya., Tolstikov, V. A.

TITLE: The Measurement of the Cross Sections of the Radiative Capture of Fast Neutrons by Isotopes of Gallium

PERIODICAL: Atomnaya energiya, 1959, Vol 7, Nr 3, p 259 (USSR)

ABSTRACT: By comparison with the capture cross section of J^{127} the capture cross sections of Ga^{69} and Ga^{71} were measured. The samples of the respective gallium isotope and the iodine sample used for comparison were, at the same time, irradiated by a fast neutron flux. The occurring β-activities were measured by means of an end-window-counter. After the decrease of β-activity, both samples were irradiated in a thermal neutron flux and the occurring β-activities were newly measured. By comparison of the activities occurring in both cases, it was possible to calculate $\sigma x(n,\gamma)$. The protons accelerated in a Van de Graaf generator furnished the fast neutrons with the aid of the reaction $T(p,n)He^3$. Within the energy range of from 200 to 1400 kev, the neutron energy could be measured with an accuracy of ± 30 kev, and within the range of 1400 to 200 kev with an accuracy of ± 50 kev. Irradiation with thermal neutrons took place in the thermal column of the experimental fast reactor. In order to eliminate the

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influence of resonance- and fast neutrons, the "cadmium"-method was employed. The results obtained are shown graphically. In the case of Ga^{69} a smooth dependence of the capture cross section on neutron energy is found, whereas in the case of Ga^{71} a sharper decrease is observed in the neighborhood of 550 kev. This is probably due to the inelastic scattering of neutrons on the levels 510 and 610 kev of Ga^{71}. There are 1 figure and 3 references, 1 of which is Soviet.

SUBMITTED: March 26, 1959

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SOV/112-59-5-9917

9(0)

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 212 (USSR)

AUTHOR: Tolstikov, V. A.

TITLE: Calculating Resonant Frequencies and Some Applications of Two Space-Coupled Two-Wire Lines

PERIODICAL: Uch. zap. Saratovsk. un-t, 1957, Vol 56, pp 146-160

ABSTRACT: A system comprising two space-coupled (parallel) two-wire lines is considered. Expressions for currents and voltages in a no-loss line derived by A. A. Pistol'kors are used as initial equations for computing resonant frequencies. The resonant frequency of coupled lines is calculated for certain loads. Use of coupled lines for capacitance and impedance measurements is considered.

S.I.S.

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SOV/112-59-1-2006

9(1)

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 1, p 289 (USSR)

AUTHOR: Tolstikov, V. A., and Dashenkov, V. M.

TITLE: Investigation of Resonant Frequencies of Two Coaxial Lines With a Distributed Coupling

PERIODICAL: Uch. zap. Saratovskiy un-t, 1957, Vol 56, pp 161-180

ABSTRACT: A theoretical calculation and experimental investigation of the resonant frequencies of two mode-TEM coaxial resonators are reported. There is a distributed coupling -- via a longitudinal slot -- between the resonators. A set of two charged cylinders over an infinite conducting plane has been obtained by means of three conformal mappings; the infinite conductive plane is replaced by mirror images of the cylinders. Electrical axes of the cylinders are found, up to the n-th order, by a method of successive mirror images on condition that the cylinder surfaces are equipotential. Characteristic impedances of the set are determined, taking into

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Investigation of Resonant Frequencies of Two Coaxial Lines With a Distributed . . . .

account the axes up to the second order inclusive. Resonant frequencies of the set are calculated. The experiment has satisfactorily confirmed calculations.

A.M.R.